

**REMARKS**

Upon entry of the instant amendment, claims 20-21 and 23-33 will remain pending in the present application.

In the instant amendment, claims 20, 23, 24 and 33 have been amended so as to further clarify the present invention. The instant amendment made herein to the claims does not incorporate new matter into the application as originally filed. For example, the term "conductive layer" in the claims 20, 23, 24 and 33 is based on the disclosure at page 7, lines 25-26 of the specification, respectively.

Accordingly, proper consideration of each of the pending claims is respectfully requested at present, as is entry of the present amendment.

***Rejection under 35 U.S.C. § 102(b)***

Claims 20-21 and 24-32 stand rejected under 35 U.S.C. § 102(b) as being anticipated by the publication by Tamura *et al.* ("Study on the anode behavior of Sn and Sn-Cu alloy thin film electrodes," *Journal of Power Sources*, Vol. 107, p. 48-44 (2002); (hereinafter "Tamura *et al.* (2002)") (see paragraph 3 of the Office Action). Applicants respectfully traverse since the cited Tamura *et al.* (2002) reference does not disclose all instantly claimed features.

**Distinctions over Tamura et al. (2002)**

As recited in claims 20 and 33, a non-aqueous secondary battery of the present invention has the following configurations:

- (a) The intermetallic compound, which contains at least one kind of element A selected from Sn, In, Ge, Ga, Pb, Al, Sb, and Si, and an element X that does not substantially react with Li, is provided on the collector of the negative electrode as an active material layer;
- (b) The conductive layer is provided between the active material layer of the negative electrode and the collector; and
- (c) The main element of the conductive layer is different from the main element of the intermetallic compound.

On the other hand, Tamura *et al.* (2002) disclose structures of active materials at the description as titled "*3.3. Heat treatment effects on the structures of the active materials.*" (See page 51 and 52 thereof).

However, Tamura *et al.* (2002) disclose that "*[i]n the annealed anode, by contrast, three layers of active material were formed on the current collector"* (Emphasis added) (see page 51, right column, lines 17-18) and "*the layers in the annealed anode consisted of Cu:Sn=6:4 phase (no. 1 and no. 2 layers), and Cu:Sn=8:2 phase (no. 3 layer)*" (see page 51, right column, lines 40-42). Further, Tamura *et al.* (2002) disclose that the Cu<sub>3</sub>Sn-like phase as shown in Fig. 8(b) constitutes an active material layer. From the descriptions and Fig 8 (b), it is clear that the "conductive layer" is not present between the active material layer and the collector in Tamura *et al.* (2002).

Therefore, Tamura *et al.* (2002) fail to disclose or suggest the configuration (b) of the present invention.

Furthermore, in Tamura *et al.* (2002), a main element of Cu<sub>3</sub>Sn-like phase is Cu, and a main element of Cu<sub>6</sub>Sn<sub>5</sub> is also Cu. Therefore, even though the Cu<sub>3</sub>Sn-like phase is construed to correspond to the claimed conductive layer, the layer of Tamura *et al.* (2002) do not meet the configuration (c) of the present invention. Thus, Tamura *et al.* (2002) fail to disclose or suggest the configuration (c) (i.e., the main element of the conductive layer is different from the main element of the intermetallic compound).

As explained above, the present invention is clearly distinguishable from Tamura *et al.* (2002) since the reference fails to disclose or suggest at least the configurations (b) and (c). Accordingly, the present invention is not anticipated by Tamura *et al.* (2002).

Based on the above explanation, Applicants respectfully request that the Examiner withdraw the rejection.

***Rejection under 35 U.S.C. § 103(a)***

Claims 20-21, 23, 25-26 and 29-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Published Application No. 2003/10180619 (hereinafter referred to as “Tamura U.S. ‘619”) in view of Tamura *et al.* (2002). Further, claim 33 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over International Publication No. WO 02/25757 (hereinafter referred to as “Tamura WO ‘757”) in view of Tamura *et al.* (2002) (see paragraphs 4-9 of the Office Action). It is noted that Tamura U.S. ‘619 is a national stage application of Tamura WO ‘757.

Applicants respectfully traverse and request that the Examiner withdraw the rejection based on the following explanations.

*Distinctions over the Cited References*

First, as explained above, Tamura *et al.* (2002) fail to disclose or suggest at least the above configurations (b) and (c) (i.e., (b) the conductive layer is provided between the active material layer of the negative electrode and the collector; (c) the main element of the conductive layer is different from the main element of the intermetallic compound).

Next, Tamura U.S. '619 and Tamura WO '757 merely disclose a thin alloy film provided on a current collector. However, they also fail to specifically disclose or suggest configurations (b) and (c) of the present invention.

Therefore, none of the cited references disclose or suggest configurations (b) and (c) of the present invention.

*Combination of the Cited References*

A *prima facie* case of obviousness is not established even if the cited references are combined since none of the cited references disclose or suggest the above configurations (b) and (c) (i.e., (b) the conductive layer is provided between the active material layer of the negative electrode and the collector; (c) the main element of the conductive layer is different from the main element of the intermetallic compound), which is recited in each of independent claims 20 and 33. Likewise, it follows that a person having ordinary skill in the art would not be motivated

by any of the teachings of the cited references and by the general knowledge to arrive at the present invention.

Accordingly, the present invention (i.e., independent claims 20 and 33 and dependent claims thereon) is not obvious over the cited references.

Based on the foregoing explanation, Applicants respectfully request that the Examiner withdraw the rejection.

**CONCLUSION**

In view of the above remarks, it is believed that claims are allowable. A Notice of Allowability is respectfully requested.

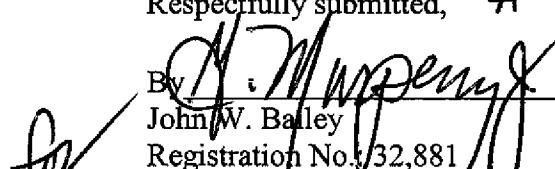
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Eugene T. Perez (Reg. No. 48,501) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§ 1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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